

Work Order ID 83406

17/04/2012 25 PM

83406

Page 1

Item ID: D206-642-541

Revision ID:

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00

Required Date: 26/04/2012 Req'd Qty: 1.00

Reference:

1

1

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan: MCT

QC:

Date: 12/04/17 Tooling:

Date:

SPC (Y/N):

Date:

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Draw Nbr

Revision Nbr

D3274

D

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

100

100

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile & type label for Part D206-642-541

0.00

CHG003

SCRAP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83406

83406

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April-17-12 4:10:25 PM

Item ID: D206-642-541

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

0.00

110

Skidtubes

Skidtubes

0.00

Memo

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M120164/M120854

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7-Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

8-Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9-Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

31.1 12.06.16
3/16 12-5-16
BDR-05 16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Item ID: D206-642-541

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start ***NR1***

QC: Date:

SPC (Y/N): Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

114

QC5- Inspect part completeness to step on W/O

0.00

114

QC

Memo

0.00

Quality Control

116

QC10- Inspect visual per QSI004- ground welds

0.00

116

QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

HandFinish

Memo

0.00

Hand Finishing

CLH 12-5-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Item ID: D206-642-541

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Replacement Skidtube

Stop *NS2*

Start Date: 17/04/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

130

QC7-Inspect Chemical Conversion Coat

0.00

130

QC

Memo

0.00

Quality Control

150

Skidtubes

0.00

150

Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/RSikaflex-291 12/22/

Sikaflex expire date: 13/01/04

Start: 12/05/22 Time: 4:15

Finish: Time:

(Adhere for 12 hours)

1 X CF 12.5.22

DE 12/05/22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Item ID: D206-642-541

Revision ID:

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00

Required Date: 26/04/2012 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: Date:

QC: Date:

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Sequence ID/
Work Center ID

160

160

QC

Quality Control

Operation
Description

QC5- Inspect part completeness to step on W/C

Memo

Set Up/
Run Hours

0.00

0.00

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

DD

12-5-23

170

170

Skidtubes

Skidtubes

Skidtubes

Memo

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

DD 12-5-23

PTO

WORK ORDER CHANGES

W/O: <u>1206042</u>		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: 1206042 PAR #: _____ Fault Category: skid tube NCR: Yes No DQA: 12/7/24 Date: 12/07/24
 Resolution: _____ Disposition: General QA: N/C Closed: ✓ Date: 12/7/24

WORK ORDER NON-CONFORMANCE (NCR)

NCR: <u>12-1608</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>12-5-23</u>	<u>170</u>	<u>Found after handling that employee had drilled the towing ring hole at the wrong place</u>	<u>12/7/18</u>	<u>Scrap & destroy</u>	<u>CF 12-7-18</u>	<u>DP 12-7-18</u>	<u>12/7/18</u>	<u>DAS 12/7/18</u>
		<u>RC, lack of attention</u> - Did not read w/o - Did not read drawing - Missed at inspection						

NOTE: Date & initial all entries

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Item ID: D206-642-541

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

190

0.00

190

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod
A/RAluminum Rod _____

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83406

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Item ID: D206-642-541

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

200

QC5- Inspect part completeness to step on W/O

0.00

200

QC

Memo

0.00

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00

210

QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00

220

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4 1.2.1 do not acid etch

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83406

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Item ID: D206-642-541

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

230

Powdercoat

Memo

0.00

Powder Coating

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

240

QC3- Inspect Part Finish

0.00

240

QC

Memo

0.00

Quality Control

250

HandFinishing

0.00

250

HandFinish

Memo

0.00

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.
A/RN/ALPS-3 _____

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a
A/R Sikaflex-291 _____
Sikaflex expire date: _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 83406

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Item ID: D206-642-541

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.
Code Qty Qty Number Stamp

260

QC5- Inspect part completeness to step on W/O

0.00

260

QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

270

0.00

270

HAND FINISHING RESOURCE #1

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/RSikaflex-291

Sikaflex expire date:

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3

Batch:

5-Install Air Cap and seal with Sikaflex. Clean excess adhesive.

A/RSikaflex-291

Sikaflex expire date:

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83406

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Item ID: D206-642-541

Revision ID:

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00

Required Date: 26/04/2012 Req'd Qty: 1.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

280

QC5- Inspect part completeness to step on W/O

0.00

280

QC

Quality Control

Memo

0.00

290

Identify as per dwg & Stock Location: _____

0.00

290

Packaging

Memo

0.00

Packaging

300

QC21- Final Inspection - Work Order Release

0.00

300

QC

Quality Control

Memo

0.00

WF
12-07-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

April-17-12 4:10:29 PM

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev: B05.09.23 Revised per D206-642 Rev. JKJ/JLM
 IPP Rev: C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev: D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev: E 08-04-17 as per PAR 08-015 DD verified by: EC
 IPP Rev: F 08-06-02 add comment DD verified by: EC
 IPP Rev: G 08-10-09 revise details DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190 Extrusion Round 3" 206		Manufactured	No			110	Each	114.0000	1	1			
<div style="display: flex; justify-content: space-between;"> <div>*D2600-1-190*</div> <div>206-16</div> </div>													

Location	Loc Qty	Loc Code
HALL	45	
69622	45	
LG	69	
76912	69	

1
D3285-1

Manufactured No

110

Each

49.0000

1

1

D3285-1

Cap

**

205-16

Location	Loc Qty	Loc Code
LG002	49	
52511	3	
52647	46	

D3282-041

Manufactured No

150

Each

7.0000

1

1

D3282-041

Float Web (206L/407)

**

205-16

Location	Loc Qty	Loc Code
LG	7	
77498	1	
80837	6	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Work Order ID: 83406

83406

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190

Each

1,060.000

12

12

D2649

Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

721

77574

2

79502

65

79503

399

79564

248

79565

7

LG001

339

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

6

78583

2

79566

212

D3275-1

Manufactured No

190

Each

153.0000

12

12

D3275-1

Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

103

80184

103

LG002

50

66930

46

74437

4

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Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

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Work Order ID: 83406

83406

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

250

Each

1,382.000

2

2

CR3212-4-03

**

Cherry Rivet

Location

Loc Qty

Loc Code

EP002

394

114859

394

ST331

988

110139

2

119017

986

D3415-041

Manufactured

No

250

Each

14.0000

1

1

D3415-041

**

Nut Plate

Location

Loc Qty

Loc Code

ST042

14

67605

14

CCR264SS3-3

Purchased

No

250

Each

467.0000

2

2

CCR264SS3-3

**

Cherry Rivet

Location

Loc Qty

Loc Code

ST331

467

113973

2

117849

109

119017

356

April-17-12 4:10:29 PM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-17-12 4:10:29 PM

Page 4

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

250

Each

5,643.000

78

78

AI S4-1032-130

Insert

**

Location

Loc Qty

Loc Code

ST280

205

119084

116

120671

89

ST281

2438

120807

438

120837

2000

ST282

3000

121269

3000

D3536-15

Manufactured

No

270

Each

34.0000

1

1

D3536-15

Gasket

**

Location

Loc Qty

Loc Code

FP002

34

73318

16

80333

4

81343

14

D3536-23

Manufactured

No

270

Each

17.0000

1

1

D3536-23

Gasket

**

Location

Loc Qty

Loc Code

FP002

17

74510

1

80334

16

April-17-12 4:10:29 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-17-12 4:10:29 PM

Page 5

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/01/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-35

Manufactured No

270 Each

43.0000

1 1

D3536-35

Gasket

**

Location

Loc Qty

Loc Code

FP002

43

80335

7

81340

12

82065

24

D3536-39

Manufactured No

270 Each

24.0000

1 1

D3536-39

Gasket

**

Location

Loc Qty

Loc Code

FP

12

82252

12

FP002

12

73317

12

D3535-15

Manufactured No

270 Each

31.0000

1 1

D3535-15

Wearshoe

**

Location

Loc Qty

Loc Code

FP001

31

74512

6

80328

12

81354

13

April-17-12 4:10:29 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-17-12 4:10:29 PM

Page 6

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-35

Manufactured No

270 Each

40 0000

1

1

D3535-35

Wearshoe

**

Location

Loc Qty

Loc Code

FP001

40

67598

1

70815

1

78873

13

79849

1

81358

9

82064

15

D3535-39

Manufactured No

270

Each

18 0000

1

1

D3535-39

Wearshoe

**

Location

Loc Qty

Loc Code

FP001

18

69759

1

73316

5

74513

12

D3535-23

Manufactured No

270

Each

11.0000

1

1

D3535-23

Wearshoe

**

Location

Loc Qty

Loc Code

FP001

11

74508

1

80330

10

April-17-12 4:10:29 PM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-3

Manufactured No

270

Each

29.0000

1

1

D3537-3

Wearpad

**

Location

Loc Qty

Loc Code

FP002

39

78836

24

80338

5

D3537-1

Manufactured No

270

Each

103.0000

9

9

D3537-1

Wearpad

**

Location

Loc Qty

Loc Code

FG

10

79833

10

FP002

93

69817

5

73716

82

80337

4

81361

2

AN960C10L

NAS1149C0332
R

Purchased

No

270

Each

0.0000

80

80

AN960C10L

washer

**

AN960C416

NAS1149C0463
R

Purchased

No

270

Each

0.0000

1

1

AN960C416

washer

**

April-17-12 4:10:29 PM

Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Shop Packet Print

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Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Page 8

D3672-1

D3672-1

Phenolic Washer

Manufactured No

Start Date: 17/04/2012

Start Qty: 1.00

Required Date: 26/04/2012

Required Qty: 1.00

270 Each 1,010,000 2 2

**

Location

Loc Qty

Loc Code

FP001

66821

34

ST060

72229

31

76277

976

80369

4

472

500

Purchased

No

270

Each

2,818,000

80

80

**

Location

Loc Qty

Loc Code

ST350

120187

2818

120521

1752

120769

28

121205

38

1000

Purchased

No

270

Each

235,0000

1

1

**

Location

Loc Qty

Loc Code

ST355

112243

235

119017

152

83

Shop Packet Print

Page 8

April-17-12 4:10:29 PM

AN3C4A

AN3C4A

BOLT

AN4C5A

AN4C5A

BOLT

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 9

Work Order ID: 83406

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83406

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured

No

270

Each

75.0000

1

1

D2646

Aft Cap

Location

Loc Qty

Loc Code

FP002

75

62678

5

68280

5

70945

1

71070

2

73294

1

73825

2

78018

17

79500

1

79562

41

D3413-1

Manufactured

No

270

Each

48.0000

1

1

D3413-1

Ring

Location

Loc Qty

Loc Code

ST420

16

79233

16

ST464

32

76754

22

80224

10

April-17-12 4:10:29 PM

Shop Packet Print

Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY SCALE NTS	
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX-241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

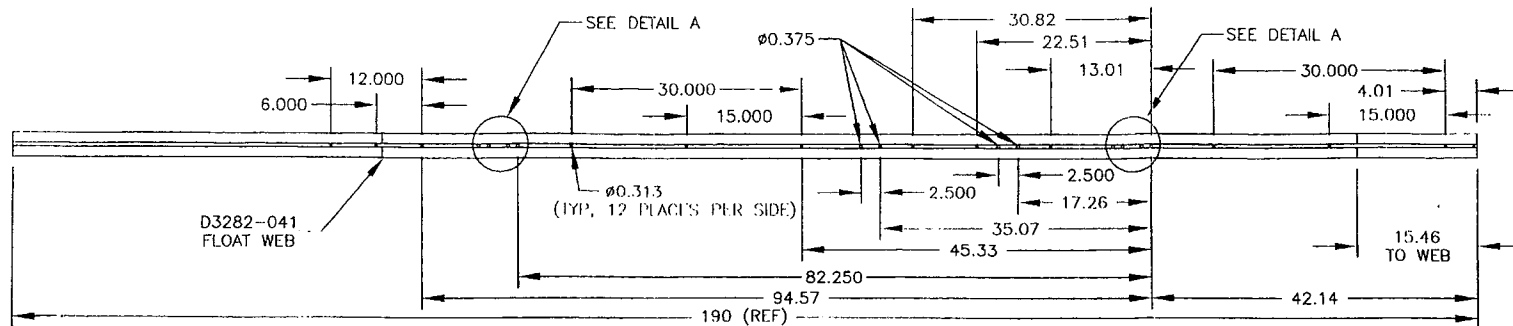
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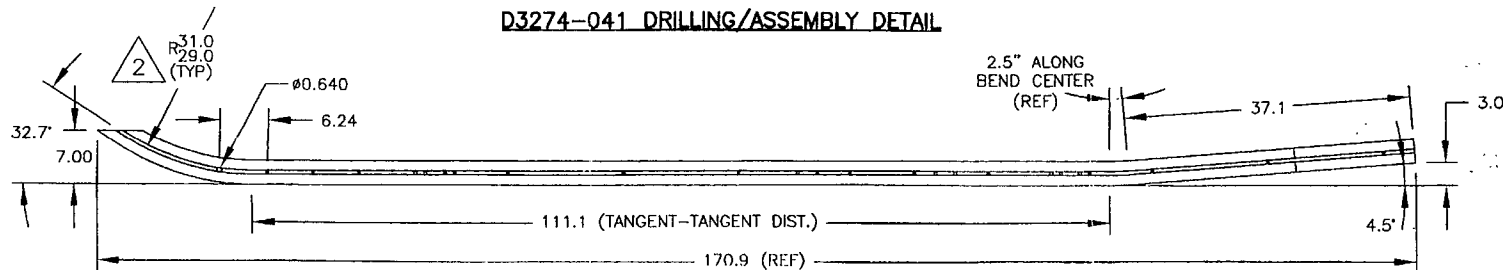
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

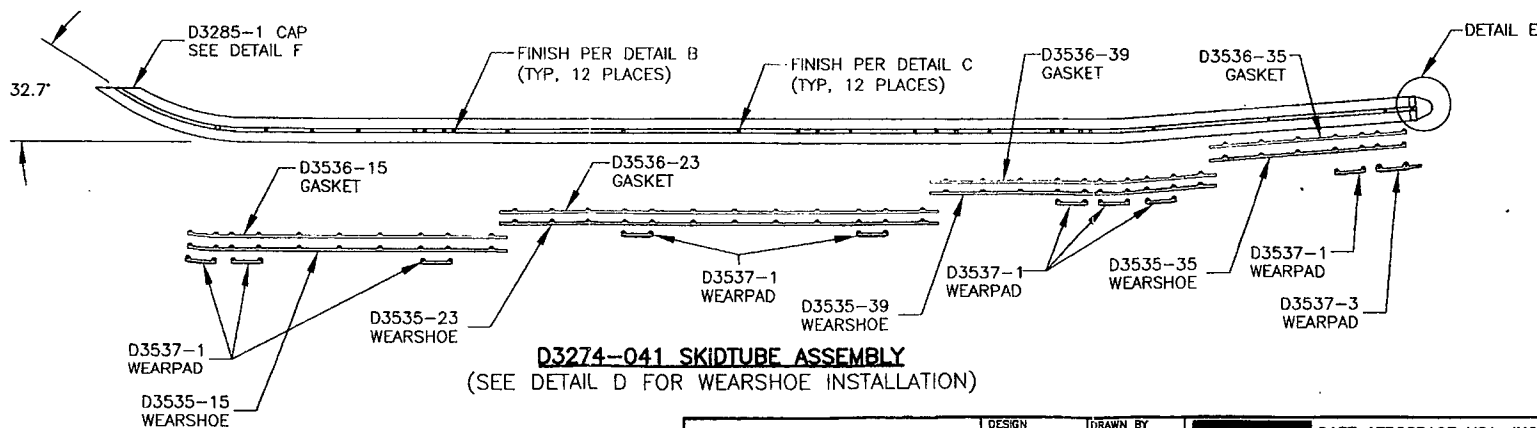
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

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		DATE	06.12.19			TITLE	SKIDTUBE ASSEMBLY
						REV. D	SHEET 2 OF 4
						SCALE	1:15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

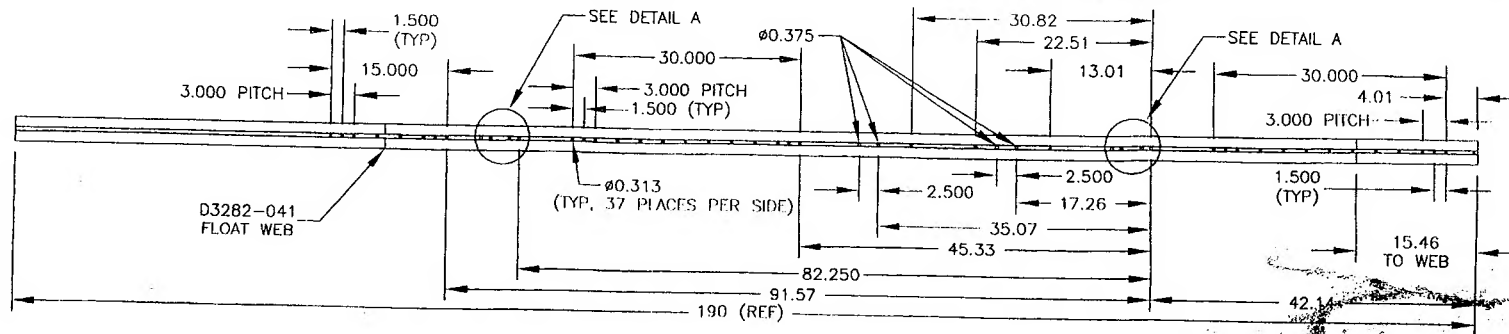
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

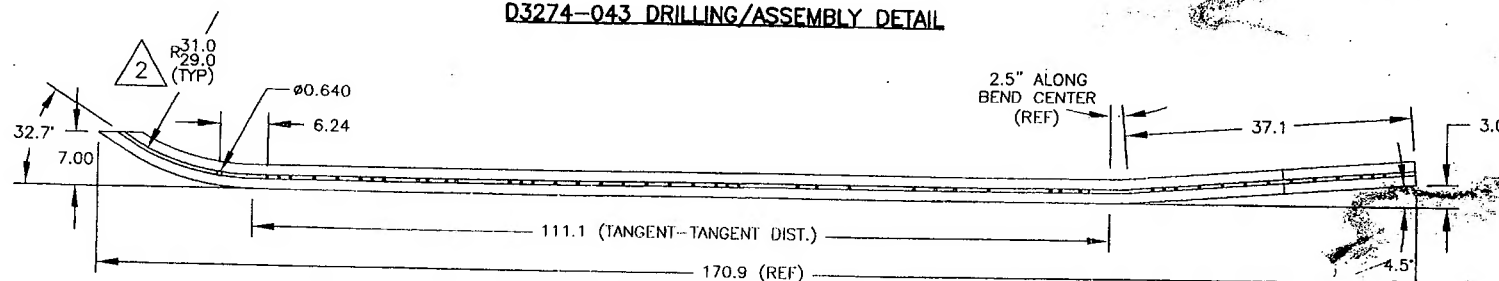
NOTE: Date & initial all entries

83406

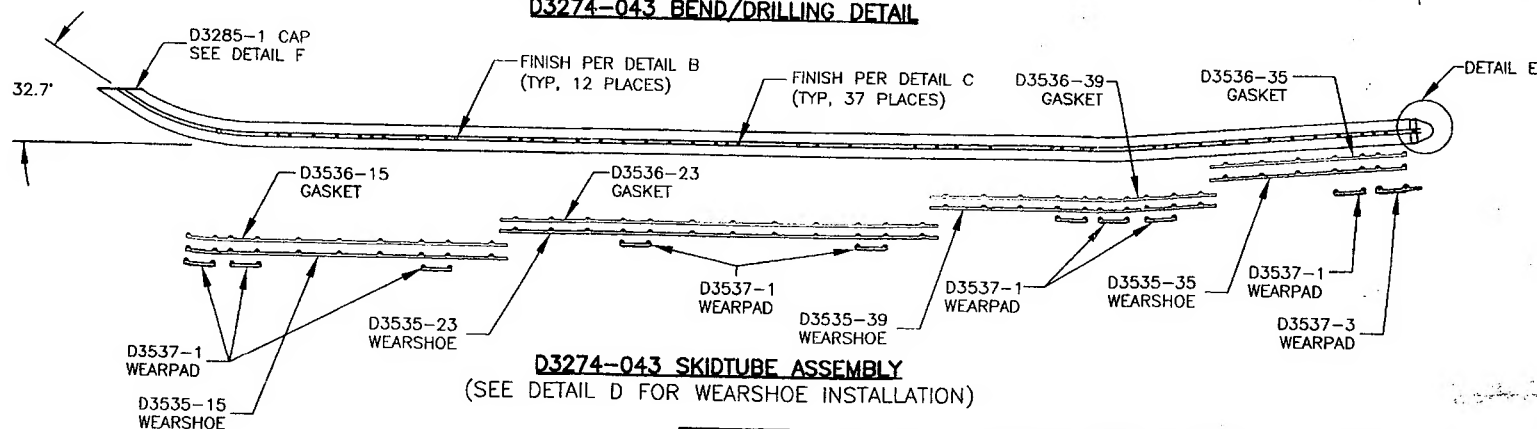
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY

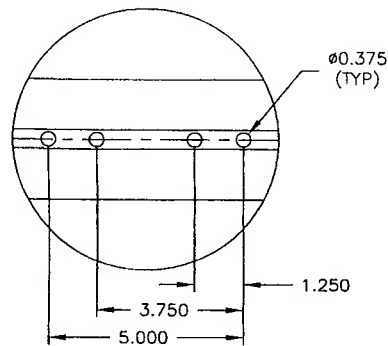
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

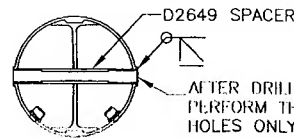
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		DATE	06.12.19		TITLE SKIDTUBE ASSEMBLY	
		REV. D SHEET 3 OF 4 SCALE 1:16				

DETAIL A: DRILL DETAIL

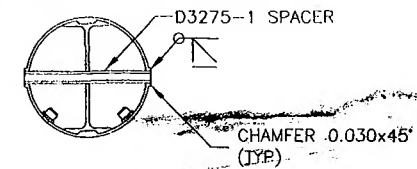


DETAIL B FOR 0.375 HOLES ONLY

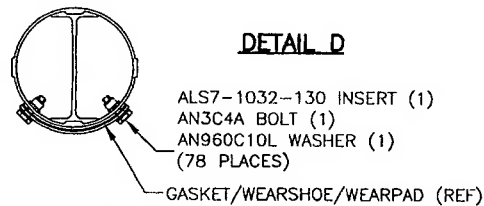


- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

DETAIL C FOR 0.313 HOLES ONLY

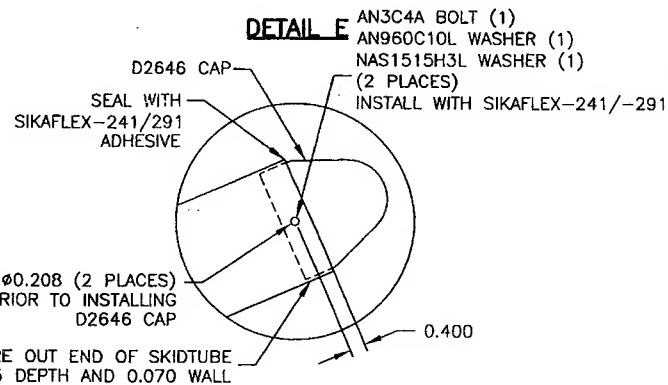


DETAIL D

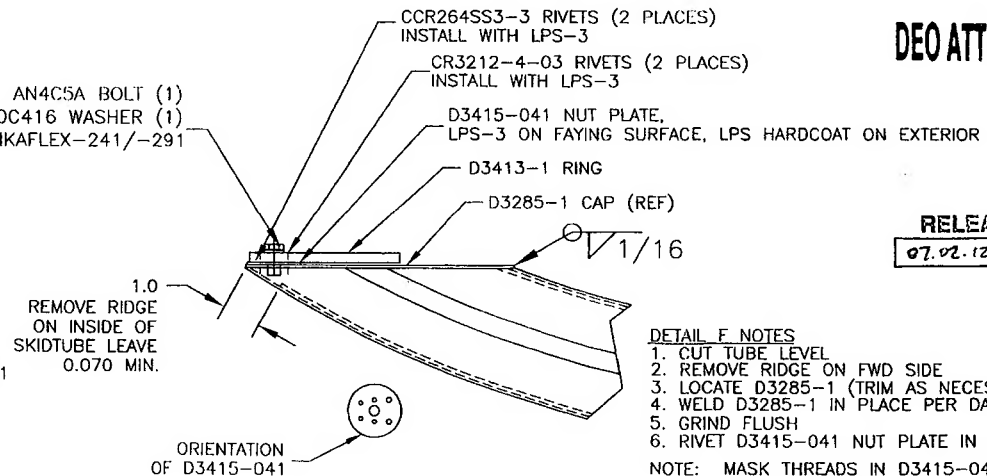


- AN4C5A BOLT (1)
AN960C416 WASHER (1)
INSTALL WITH SIKAFLEX-241/-291

DETAIL E



DETAIL F: END FINISHING DETAIL



- DETAIL F NOTES**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

DEO ATTACHED

RELEASED

07.02.12

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		DATE	06.12.19			D3274	SHEET 4 OF 4
		TITLE					SCALE
		SKIDTUBE ASSEMBLY					1:3

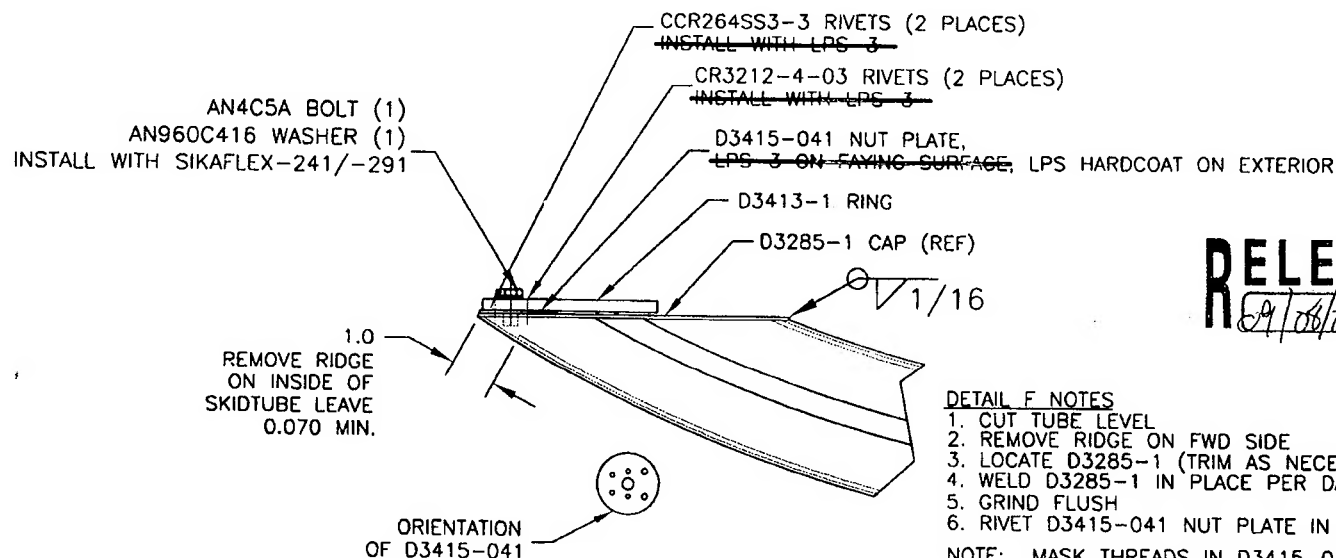
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>1</i>	MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>	DE APPR. <i>#</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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